

1922 Coll. 739 #11

FIELD TRIP BOOK DIARY

CALIF., WYO., ARIZ.

Records

Coll. 739

11

1922.

ACADEMY
NAT. SCI.
PHILA.
MS. 5

Field Diary

ACADEMY
NAT. SCI.
PHILA.
MS. 586

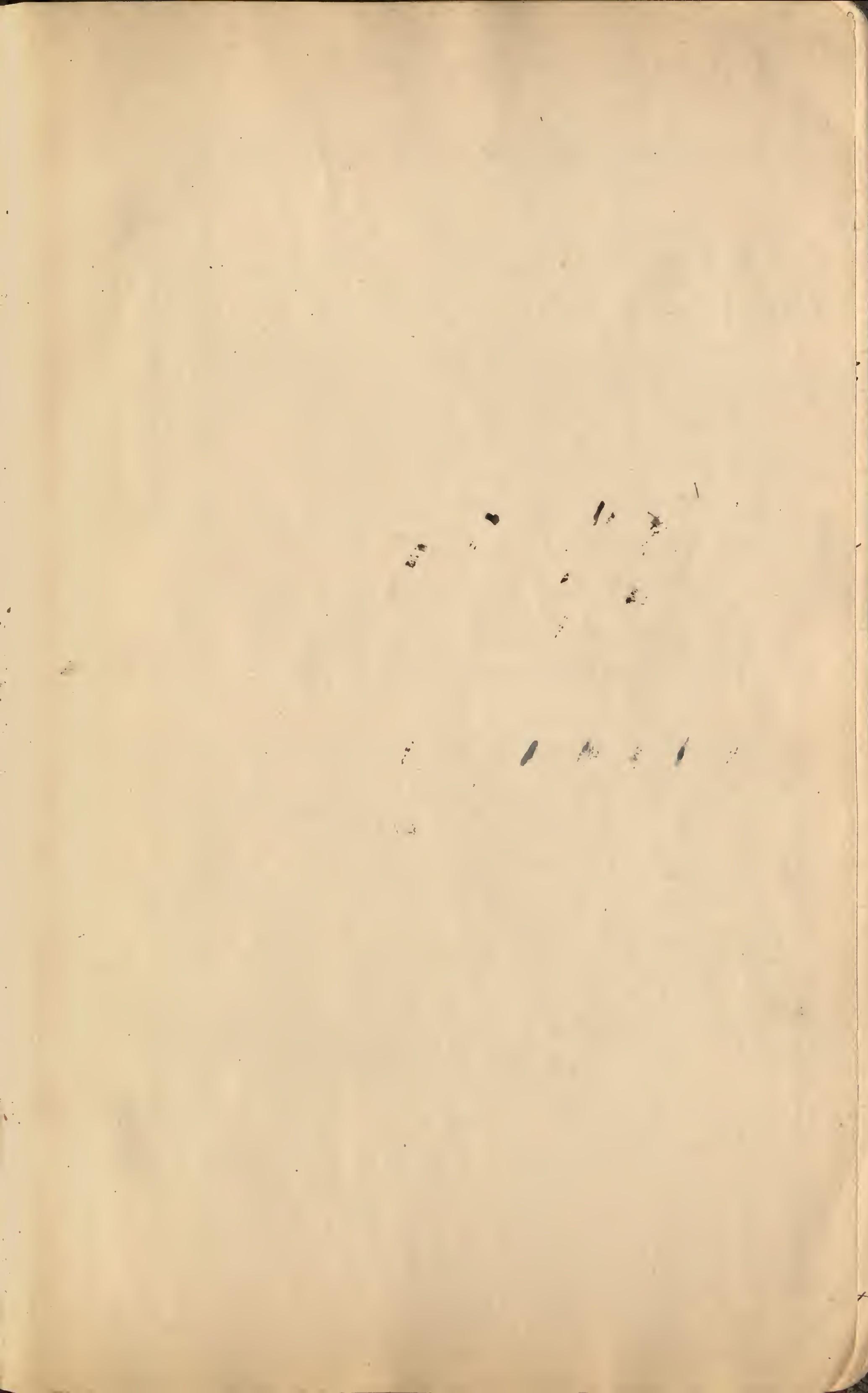
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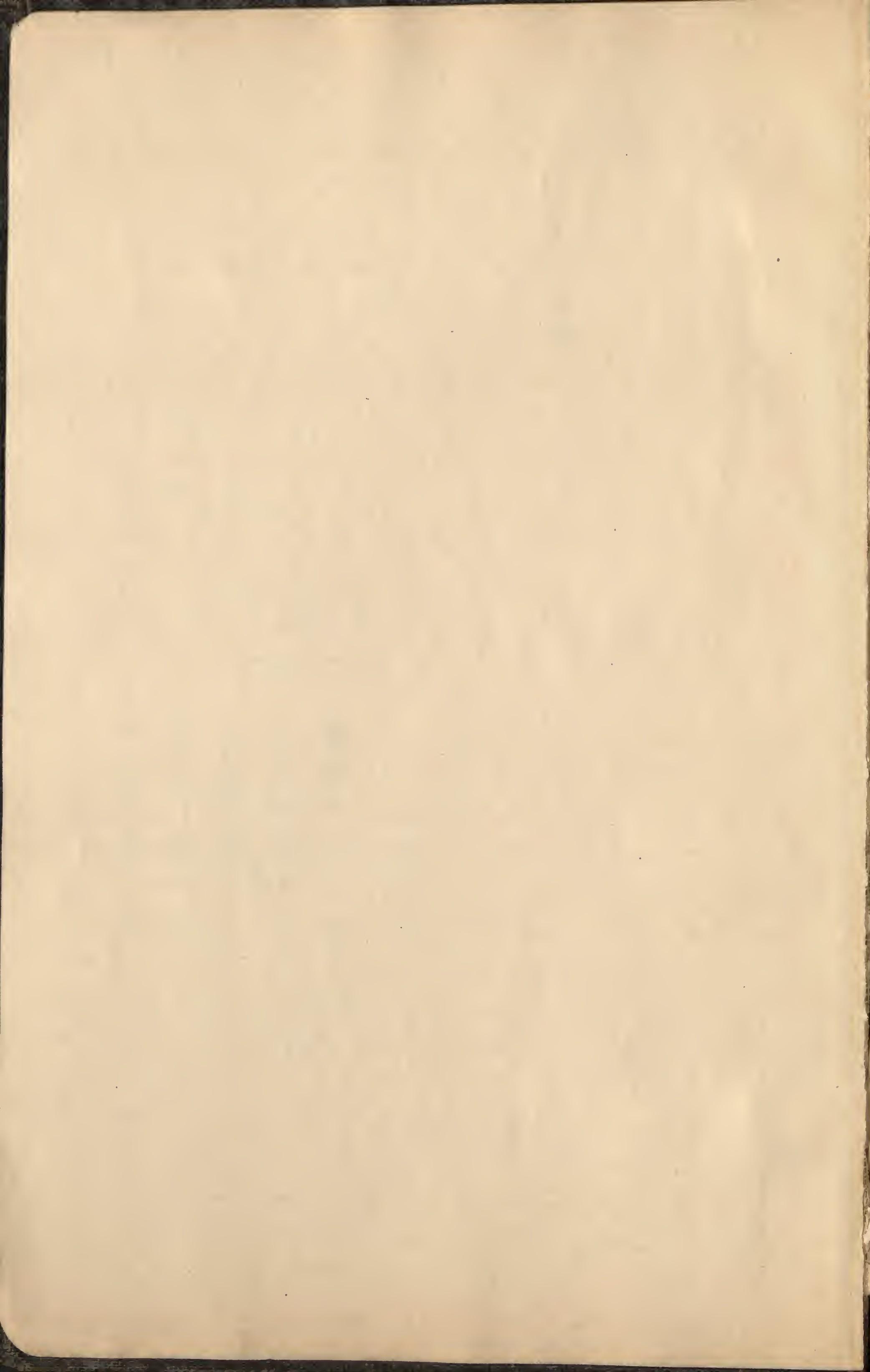
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Oct.





1922.

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Aug. 4. Left Phila. in "Pennsylvania Limited" at 1.16 P.M.

Aug. 5 Arrived in Chicago 10.50 A.M., nearly two hrs. late from freight wreck in Ohio. Left at 8.00 P.M. in "Los Angeles Limited."

Aug. 6. Arrived at Omaha 3.30 P.M., due to engine trouble in North western. Union Pacific made up sufficient time to get me in Cheyenne, Wyoming very shortly after midnight.

Aug. 7. Cheyenne, Wyoming.

After a comfortable sleep at #6. the "Plains Hotel" I had a good breakfast and secured a carmine Ford and driver. We went off W. from to the west, up the Sherman grade to a point about two miles east of Granite Canyon, where I worked for several hours until a storm drove me in. Secured a fair and interesting representation. Left Cheyenne at 5.45 P.M. for Laramie, arriving 7.30. Put up material and turned in. Could not get in hotel, but got good a good, though inside room. 13-striped spermophiles. Remained

in vicinity of Cheyenne. Annu-
spermophilus grammurus are
near Cheyenne.

Horned Lark. Numerous betw.
Cheyenne & granite Canyon.

Aug. 8. Laramie, Laramie Mts. to Medicine
Bow, Wyoming.

Film #1 Not being able to get a hotel room,
exp. 2. I managed to get a good double
bedding S. room at a clean inn near
Laramie from 8833 and doubled up on it with a Canadian
salesman, who was a gentleman
and a man of culture. Had a good
long Peak nights sleep and after a good
regim (in breakfast I hired a machine &
distanced. drive. I was unable to get a Ford
16 stop 1/25 and had to use an Oldsmobile.
exp. 3. 25 of a mile running, \$1 on horn
East from Harding. In the morning we ran
supt. up along the Lincoln Highway
(Crow Creek to the highest point reached
hill) 11,10 by it on the Laramie Mts., which
are about 14 miles from Laramie.
1/25-16 stop. Here at Crow Creek Hill the road
rises 8833 feet, the hill 8877 feet.
Here I waited for two hours, in
grass, sage, open pine woods and
aspen thickets. The view to the
south showed the mountains of the
Longs Peak country, while to the

west, across a deep canyon, were the rugged knobs and crests of the more eastern spur of the Laramie's, which in the prov. topo-graphic is called the Sherman Mts. After lunch we took the machine and went off to the west about eight miles, working in two locations, one on the slopes of the very large depression known as "The Big Hollow"; the other, which was unmarked, only after considerable search, an area of rabbit weed, some mesquites dried, alfalfa run wild, alkali areas with a little salt bush and one section of scrub grasses. The first district was extremely disappointing, and the road evolved itself into a trail for sections not closely grazed. The second section examined was the only place we could find.

Getting back into Laramie about four and at the station for a five-centy-five train, it was 6.40 before I was actually on board and bound for Medicine Bow. I arrived there at 8.10 P.M. and was soon comfortably installed at "The Virginian." The fitting to the

hotel, however, was not comfortable, as I had no help and was in the last car of a tourist car train.

(Experiment with comint.)

Magpie. In canyon of Laramie - one.
Prairie Bunting. A number near Laramie.
Savannah Lark. A number of numbers
about Laramie & in way to
Crows Creek will.

Territorial Blackbird. Numerous
about ranches near Laramie.
Marsh Hawk. One quartered low
on ground where I worked
last.

Sparrows - numerous.

Vireo dogs - several in range.

Aug. 9, 1922. Medicine Bow, ^{Carbon} ~~Carbon~~ Co., Wyoming.
to Rawlins, Carbon Co., Wyo.

Had my stuff all put up by 10.30
A.M. and then had a glorious sleep
until 6.50 A.M. As the past two
nights I had either but part of a
full night's rest or slept in an
inside room with little air, if
was a real treat to have all the
cool breeze I wanted. The hotel
is good and clean, food simple
but wholesome. After breakfast

walked off to the S. E. - E. of town, over rolling plain, bare or with sage & rabbit weed, with silt or pebbly slopes. I had good luck and got quite a little of interest, including intermediate material of the J. Plains and J. Basin races of Aeolothreutes carolinianus and Ulerotremus haydenii. The view to the north showed the Tetonant Hills, while to the southwest Elk Mountain, the southern end of the Medicine Bow range dominated the landscape. I spent four hours in the field and worked over quite a few miles of country. After a good lunch I packed material, much requiring stuffing, until nearly train time.

My train left Medicine Bow at 4.30 and arrived at Rawlins at 6.20 P.M. About Hanna no mines seemed to be producing coal except one which was running out "slack" or powdered coal. At

Rawlins the "Terris" was short of men, but I got a double one with a St. Louis drummer and was comfortably fixed up.

Jack Rabbit - Betw. Medicine Bow
and Hanna.

Horned Lark. Scr. at Medicine Bow.
Magpie. One near Hanna.

Aug. 10,
1922. Rawlins to Wamsutter, to Rock
Springs, Wyoming.

Film 1. I was up at 5.15 A.M. after a night
#4. Autopus which for some unknown reason
had at had yielded but little sleep. The
Wamsutter, morning was overcast with threatening
growing with mass of gray clouds, coming now &
black sage of the sky. The train was an
(sample taken) hour late and it was 7.15 instead
1.15 P.M. of 6.15 when we left Rawlins. Bet.
16 stop $\frac{1}{2}$ between Rawlins and Wamsutter we
#5:

passed through some hair and
Wamsutter, this turned to rain, which we
several falling steadily when we stopped
conditions at Wamsutter. It kept me
looking E. station house until after nine
(dark
patches
sage)
4.40 P.M. o'clock, in fact nearly ten
 $\frac{1}{2}$ stop. the little hotel and transport
my bags there. The sun did not
come out until nearly noon, but
by the time I had gotten some
trunk in a little eating house
things had completely dried off.
and the dirt flats around us

evidence of the dredging they had just rendered. I worked off to the east and S. E. of the little town, in rolling plains, with scattered clumps and patches of black sage, Aeoloplos bush & other species, with sun-cracked silt areas on the banks and much of the gentle slopes with bunch grass and other herbaceous growth. I worked from 1-5 PM and the results were very meager, in fact discouragingly so. The fact that I was fitting Hapotypos of Drim. agassizii was one of the few saving graces.

I left Wamsutter at 8.05 PM and arrived at Rock Springs about 10.30. It was a beautiful night and the sunset on the Red Desert country was something to be remembered. I was soon very comfortably installed in the Park Hotel. Cotton-tail Rabbit. Near Rawlins & at Wamsutter.

Aug. 11. Rock Springs, Wyoming.
 1922. After a good breakfast I set out
 film 1 on foot to the north, which seemed
 exp. #6 to me the most promising direction.
 Surface This led up the valley of Killpecker
 Mountain Creek. There I struck into the
 hills hills to the east and worked all
 at Rock morning ~~from~~ between 6250 and
 sps. Hst. 6500 feet. The hills are largely
 of limestone. weathered sandstone, with
 10-15% some hard ledges and points,
 1/25-hth. but the surface is mostly debris
 16-22. of the basic rock, with scattered
 film 2 sage, some low cactus, Atriplex
 exp. #1 and ? Chenopodium. The results
 looking N. were fairly good and after lunch
 up valley I returned to work some flats of
 of Killpecker taller sage in the flood plain on
 creek from the west side of Killpecker Creek.
 hills N. of This proceeded fairly well until
 Rock sps. a rain storm stopped work for
 10.05 A.M. the day. The town is very largely
 1/25-16 strip. foreign, coal miners, and they
 are everywhere in evidence. In the
 evening I had a talk with a striking
 miner, an American, and it was
 interesting to get his viewpoint,
 which clearly showed how little
 cohesion there is between the
 native & foreign coal miners.

Rock Wren - One in hills & another
one dead in same place.

Mourning Hen. Several in hills.

Aug. 12, Rock Springs to Granger, Wyoming.
1922.

After breakfast I found the
9.45 A.M. train would be somewhat
late, which lateness by easy
stages reached to 2 P.M. At
no time was enough leeway
given to warrant unpacking
and going out for some hours,
as the train I waited was
the only one which was at all
practicable for me to use to
Granger. Eventually I reached
Granger at 4 P.M. instead
of shortly after 11. I was
delighted to find a livable
hotel, which made unnecessary
an evening's run back to Green
River to sleep. I went out for
nearly two hours, down along
the Black's Fork of the Green River
and then out on the sage flats,
but found almost nothing, and
the birds made work almost
impossible.

Mourning Hen. One at Granger.
Night Hawk. One on sage flat
at Granger.

Aug. 13, Granger, Wyoming, to Evanston,
1922. Wyoming.

last evening we had a terrific thunder storm, with a wind which the hotel-keepers said was the worst they had had since 1916. This morning it was still storming off to the north and northeast, and continued to do so until I left from Evanston at three P.M. After breakfast I walked off to the north over the sage flats and up over the brush hill to the third rise. Work was slow, the wind handicapped me and a storm net made me lose some things, but I secured my specimens and did fair for an almost exclusively sage brush locality. The train I was to take to Evanston was scheduled to leave at 11:30 A.M., but it was three P.M. before it got off. East bound trains were also off schedule - in fact one from Los Angeles was yesterday's train. I reached Evanston at five o'clock, and was soon installed at the Hotel Evanston in a comfortable room with

bath, which I have not been able to enjoy since leaving home. In the evening I wrote letters and went to the movies, as I had packed my catch before leaving Frangier. We had one heavy thunder storm at 6.15 and another one at nine. I might add that at 12.30 in Frangier we had a hail storm.

Cotton-tail Rabbit. Dus in sage at Frangier.

Brewer's Blackbird. Flocks at Carter and quite a few at Frangier. Magpie. - Dus at Knight in Bear River Valley, about 8 miles east (R.R.) of Evanston.

Aug. 14, 1922. Evanston, Wyoming and vicinity.
 Film 2 After a good breakfast, proceeded
 Exp. no. 2 by a good bath, I struck off to the
 Forting N. from south of town and spent a
 hill S. of town - profitable morning working in
 stream. Medicine the sage & other calm of the hills
 Butte in dist. 9,55 am. 16 stop which roll off to the south. I
^{1/25}
 Exp. no. 3. worked up to an extensive brush
 in Bear River at 7100 feet, which ran off an
 Horride E. of considerable distance to the south.
 Evanston approx. 7500 feet. After lunch I got a machine
 2 PM. 715 16 stop.

and dinner and went up to the point where the road crosses the Bear River divide to the east of Emmon's. At a locality near there, where junipers were numerous, and at an elevation of 7400-7700 feet, I worked for some time, on steep slopes and the valley floor, with but little success. We ran in much snow and there I worked in the meadow lands of Bear River, but with some but not startling success. It took considerable time to put up the day's catch, which in all was a fairly interesting one.

Brewer's Blackbird - Numerous about Brewster, could not see under surface. ^{Emmon's}
Arkansas Kingbird. One in morning.

Aug. 15. Emmon's, Wyoming to Ogden, 1922. + Ogden Canyon, Utah.
Tired II. I was called at 5.00 A.M. on the no. 4. report of my train at 5.45, but looking it was 6.30 when it materialized. From Ogden I arrived in Ogden about 9.00 A.M. and was soon installed at the "New Peaky," having \$25 16 steps. An early lunch I took the

Ogden Canyon car and went up the Canyon to the Reservoir (Pineview) and there worked for some hours in the bottom land and my turn slopes of the Canyon. As we had worked the slopes for about six hundred feet up I did not take the time available to go over these. The vast abundance of Melanerpes atlantis was most discouraging making collecting work very hard. However, I secured several particularly desirable things. I was back at the hotel about five.

Spotted (?) Sandpiper. One in Ogden Canyon.

Belted Kingfisher. One in Ogden Canyon.

Aug. 16. Ogden, Utah to Clover Valley, Nevada.
1922.

I was up at 5.00 A.M. and had breakfast at the Station. Morgan's train came in at 5.40 but he was not on it, that is he came from West Yellowstone or another one and arrived somewhat later.

After he had gotten some break-

fast we tried to get on the Pacific
Limited, but due to strike congestion
they were endeavoring to keep local
passenger off of it. However, by
the exercise of a little clever
work we managed to get on the
observation car. It was 1.30 P.M.
^{when} we arrived at Wells, Nevada, and
after considerable inquiry, based on
some correspondence of Morgan's,
we got a machine and started
out to endeavor to find a ranchman
who would spare two horses for
us to work up into the mountains.
The valley on the east side of the
Ruby Range is Clem Valley and
it is full of splendid hay
fields. All the ranches were
haying, and only after considerable
time and search we found
Mr. Winchell who was willing
to let us have two horses for
the work, and Mrs. W. was willing
to put us up. The ranch house
is a brick building, with wonderful
lombardy poplars about. We worked
for about an hour in nearly sage late
in the afternoon and had good
luck. The Winchells were most
kind to us and went far out of

their way to make us comfortable. The sunset view of our the valley of rich green hay field with the purple desert mountains all on the horizon was magnificient, while turning to the west the Ruby range turned about us, with its snowy streaked upper slopes.

Shrikes. A number at Clark Valley Magpie app. to the big species) over in fence near Coble.

Sage hen. Flock of five in alfalfa at ranch.

Mourning Dove. Several flocks - Wells to Clark Valley.

Meadow Lark. Saw in field at Clark Valley.

Bruin's Blackbird. Large flock at Ranch.

Aug. 17, 1962. To Ruby Range and return to Clark Valley, Elko Co., Nevada.

Woke up about 5.45 AM and after breakfast the wrangling of the horses we were to use was not in order. One was very easy, an old, sophisticated white horse, who was gentle and intelligent. With him as a mount Morgan

#5 Lining S.W. from 7000 feet.
Found Southern part, Ruby group.
9.10 a.m. 16 strip 1/25.

John 2. proceeded to get the second horse,
#6. a younger black animal, which
looking was a splendid saddle animal
when finally bridled. Hmmm, he
Ruby Range gave Morgan many a chase over
from 8000 the large pasture before we could
put, elev. finally fit him into the corral
10,000 AM and bridled. We set out about
1/2 1600. 8.15 AM. and headed directly

for a very extensive snow area in
one of the canyons. The rise gradual
for about four miles, then quite
steep and steady climbing work,
was through sage, then into a
chaparral which made me think
of manzanita, and areas of aspen.
The going in the chaparral and
aspen was hard. We reached the
12 N - 2 PM. snow at 12.00 and here we ate our
1/2 n meal. lunch (elev. ab. 9500 feet), drinking
16 strip. the ice-cold water running from under
the snow. Hearing the horses there
we worked up to 10,000 feet, where
Morgan started out for the main
ridge, while I was to walk that ridge
until he should get back. The slopes
were steep and stony, but with
many wild flowers in bloom, the
purple lupine being everywhere.
Morgan reached the main ridge,

elev. 11,200 feet and then came down, after picking up all the *Orthoptera* he found there. His song was very steep and he was very tired. We started down at 3.00 P.M., as one storm raged out over the Clow Valley and another one came along the Ruby Range. The latter caught us and we rode for about three miles through the rain, getting pretty wet. We reached the ranch at 5.00 P.M. very tired.

Wordeek. Morgan saw a bunch in pasture at暮.

Worming Horn. Dev. in road at Ranch. Pine Jays (?) Morgan saw two at about 7500 feet.

Magpie. One seen at about 7000 feet. Golden Eagle. Morgan saw two at about 10,800, flying rocky crags.

Marmots. Whistled about us at 10,000 feet. Chipmunks. At same elev.

Poorwill. One on low slope of mtn. - flat top. Night hawk. Dev. " " " "

Gilders - Number in coral - bay Brewster Blackbird. Numerous at ranch.

Aug. 18, Mitchell's Ranch, Clark Valley,
1922. Elko Co., Nevada to en route
to Reno, Nevada.

Thur 3 We were up shortly after six o'clock
at Mitchell's and after breakfast did some
Ranch collecting in the sage brush
10.05 AM. and similar conditions for about
 $\frac{1}{2}$ to 16⁴/₅ p.m. a half mile above the ranch

toward the Ruby Mountains.
We left at 10.30 A.M. by machine
for Wells, there to find that instead
of arriving at 11.22 A.M. our train
would not arrive until after
three P.M. A shower passed over
while we were waiting, and I
spent my time writing letters and
reading proof. We finally left
about 3.45 P.M. and saw much
of the country to the west by
daylight. It was at Battle f
Mountain at 8.30 P.M. that I
finally turned in for the night.

Night Hawk. Saw. at Clark Valley.
Brewer's Blackbird. Numerous at
Mitchell's Ranch.

Aug. 19, Reno, Nevada to Westwood, Los Angeles Co., California.

I had rented out four berths at 2.10 A.M., the train being four hours late. The hotel bus added excitement to the hour by dropping my bag & the sparcs into the middle of the street & breaking a corner open on each. We registered at the Golden Hotel and tumbled into bed again. After a satisfactory breakfast we boarded the train for Westwood at about 9.00 A.M. Made over at Sparks it was a comfortable little train of three cars, one of which was the comfortable old-style Pullman in which we were riding. The route was from Fernley northward along the west-side of Pyramid Lake. Its intensely blue waters bore numerous white pelicans and also a small gull. From Pyramid Lake to the vicinity of Honey Lake it is largely flat of brown adobe, covered solely with sage brush. At Loyalton the first Sierra hills and the first timber is reached. From there to Westwood is right up into the heart of the

section of the Sierras. The yellow pine and firs get taller and more impressive, growing frequently on great outcrops of lava, which the Susan River boils away into the low country. At Matwood, which is the lumber town of the Red River Lumber Company, we were very comfortably roomed, by our hairy taken the advice of a railroad official in the P.P. and wired for rooms. We ate at a very satisfactory club restaurant.

White Pelicans. Numerous on Pyramid Lake.

Goldfinch full - Number on ditto.
Red-tailed Hawk. One bktw.

Susamille - Matwood.
Night Hawk. Sd. at Matwood.

Aug. 20. 1922. Matwood to Harkness Peak, Lassen Volcanic Park, Cal. & return.

After a good breakfast at the Club we left in a Packard nine-six and travelled through magnificent forest, first of tall pine & white fir, then sugar pine and lastly of douglas fir.

Film 4

No. 1.

Looking across Juniper lake at ab. 7600 ft.

11.00 am.

- no. 2 Our route took us past several
 ditto at 7800 feet. Then the little town
^{11.00 AM} of Chester, then off on to a mountain
 road which was steadily climb
 no. 3.
- Lassen Peak for nearly two hours to Juniper
 from Harkness Lake, altitude about 7800 feet.
^{Peak summit} This is at the foot of the real
^{1.00 PM} peak of Mt. Harkness. At 11.00
- no. 4. Shasta from AM. We started for this summit
 Harkness
^{Peak summit} and worked up our lava,
^{1.00 PM} large & small, with moraines
 no. 5. of the material thrown the
 looking E. from Hark-
 ness Peak. Glacial growing, and to a
^{1.00 PM} summit cover of small fragments
 and almost gravelly stretch of
 lava. The view from the summit
 was splendid, the elev. 9200 feet.
^{Peak, looking} To the west Mt. Lassen domi-
^{E. 1.30 PM} nated everything while off to
 the north the white lined bulk
 of Shasta was rising like a
 large Douglas great cloud. At our feet was
 Mt. Harkness the deep blue of Juniper Lake,
 near Juniper
 lake ab.
⁷⁸⁰⁰ feet.
- no. 2 Typical
 tall pine
 forest
^{etc + 1}
 cluster.
 ab. 4800 feet.
^{4.30 PM} Day's work to repay us.

Eutamias amoenus. Common
everywhere.

Cathartes aura. Nearly
equally numerous.

Mtn. chick - Found on a boulder at
about 7000 feet.

Blushy Finch. One at about 7500
feet, another on summit of mt.

Harkness.

Californian Woodpecker. One at
7500 feet.

Turkey Buzzard. One at Chester.

Aug. 21, Motored to Arcoadea, California.

1922. I left Motored via a jitney
(Chevrolet) at 8.00 A.M. with our
three heavy bags stored in the
rear seat, with me of us, the bus
changing occasionally. We went
down the Loomisville road, through
the magnificent Sierra forest,
on the lower divide between the
Feather River drainage (Pacific)
the Susan River (Great Basin). The
road to Loomisville is a new one,
beautifully graded. We worked at
two localities just outside of Mot.
and, one a wet meadow, the

other a dries me with an intrusion
of sage, also at roadside what is
called the Devil's Corral, on
the Susan River. A great deal
of the course of the Susan River
for about ten miles above Susan-
ville is through lava bed, and
the Devil's Corral shows many ex-
tensive areas of volcanic origin.
The final drop out of the mountains
is directly into Susanville, which
is immediately at the foot of the
mountains, and was a great
point for starting across from
'49 m. I lunched at a Chinese
restaurant in Susanville and
about two-thirty started for
Oranadee, where we were to lay-
over night and then go on over
the narrow-gauge Nevada,
California and Oregon Railroad
to Alturas and Lassen. From
Susanville down to Lightfield
ranch succeeded ranch, with
hay and alfalfa fields, a
number of troughs having a large
number of ducks in them. The
ground became more and
more alkaline, thus road
powering the dust thicker and
more pungent. The sage, which

had predominated on the uncultivated land, began to be mixed with Sarcobatus, and finally replaced almost entirely by the latter. From about five miles above Amodee to Amodee the dust was frightful and the road extremely poor. Amodee is a group of about a half dozen buildings gathered about a collection of hot springs, which bubble up from the soil. The hotel is a large barn-like structure, which certainly was someone's "folly," as it clearly cost many times more than the patronage of the springs would warrant. It is a melancholy place with few and hopelessly inadequate furnishings. I've got a large room with two beds, and put up our day's catch, while the wind, which had been heavy all afternoon, roared outside. After dinner, of a most primitive kind, we took the flash-lamps and went out to look for desertids and eudistomes, with little success.

Magpie. One near Susanville.

Pintail. Numbers in slight increase

Susamille and Lickfield.
Ducks, other species but not
determined. Numbers in
sloughs as above.

Entomias. } Common in
Callospermophilus. } Sierra buts.
Westwood & Susan-
ille.

Crotophytes of the mitzitzens type,
one, the largest of the genus I
have ever seen, at Lickfield.

Aug. 22, Amador, California to Alturas,
1922. California.

7 a.m. We had a good night's rest, which
was hardly to be expected after
Ducks in the general impression created
Honey Lake by the dilapidated condition
pm light. of the hotel. After a rough but
9 a.m. filling breakfast, we struck out
11 stop past the hot springs, over alkali
1/25. saturated silt, with Tascobatus
and rabbit mud toward the
shore of Honey Lake. The day
was overcast and cool, while
the mosquitos were bad. We had
fair success in our collecting.
The great sight of the day was
the vast numbers of water

ford on Honey Lake. The ducks were by the thousand, feeding in the shallows, running out as you walked along the shore. We could not identify the species, but we saw one splendid bunch of about a dozen avocet, while many sandpipers, sp. ?, and killdeer ran along the shore.

After lunch we went to board the 1.15 P.M. mixed train for Alturas, but it was 5.20 P.M. before it arrived & finally left. We had a large cake of sweet chocolate with us and that was all the nourishment until the narrow-gauge N. C. & O. train reached Madeline at 10.45 P.M. There we had supper and after dozing curled up in a seat for some hours we reached Alturas shortly after 2. A.M. We were at once installed in a comfortable double room, ^{at the Niles Hotel}, and we slept the sleep of the tired until about 7.00 A.M.

Avocet. About a dozen on Honey Lake.
Ducks sp. ?? Thousands in flocks.
Brown's Blackbirds. About four of
them.

Kildon. Numerous on shore of Honey Lake.

Sandpipers sp? Found a few on shore of Honey Lake.

One of the best springs at Amdeec is a small geyser, bubbling up through a calcareous aperture, and every 45 seconds throwing a column of water to a height of 15-18 inches, lasting about 15 to 20 seconds. The other springs are bubbling springs, some apparently of far greater discharge than the geyser. Another geyser is located just south of Mound.

Aug. 23, Alturas, California to ~~Lakeview~~, Oregon.

Breakfast concluded, we took a car, and started #4 out to make the vicinity of Loring S.E. Alturas. We went off to the farm edge east and worked in pasture land, sage brush on silt, escarpment sage brush on low lava hills in Alturas and sun-cured short grass 3-00 PM. Results were at first 12-16 steps rather poor, but before going for lunch we had gotten a

very good assortment and series
of several most desirable things.
After lunch, using the machine,
we went off to the north-west and
climbed the edge of the great
Modon lava ~~volcanic~~ bed, this
being about 800 feet above the
valley of the upper Pitt River.
The char is largely scattered
Juniper, and we found little
of interest. We worked down the
slope and then in dry grass
and lava at the base, getting
several species additional to
the morning's work. At six
we were informed our train was
one hour and forty minutes late
and according we went to meet
it, only to find it had arrived
+ departed ten minutes before.
As there is but one fair train
any other day, our disgust could
not be expressed by words. We at once
set about getting a machine to
take us to Lahontan, Oregon + back.
Goshawks. Morgan saw several in
~~lakes~~
~~steep~~ at Alturas.

Great Blue Heron. Three in lake
at ditto - one quite tame.
Tern, with black cap - one
flying over same.

Bittern - two in lake at
Alturas found
Gull - in mottled plumage -
one wading along slough at
Alturas.

Hawks sp.? Numerous in
lakes - sloughs at Alturas.

Brewer's Blackbird. Numerous
at Alturas.

Shrike. One on fence at ditto.
Pomarine. One.

Aug. 24, Alturas, California to Lakeview,
Oregon, and return.

Film 5
no. 5-6. We left Alturas at 6.15 AM.
Sandstone "Hat" machine we had yester-
pinnacles day, bound for Lakeview, Oregon
along Pitt river return. Our course
Rim N.E. red first with east to the
of Alturas, canyon of the Pitt river
Cal.

4.30 PM through the Meadow lava take-
ing, then on the lava,
1/20-16 stop. droppin down regular
to the broad valley of foot
Cave. Bird life was much
in evidence so early in the
morning. Dove Lake is 45
miles long, but very shallow
and across the indented
end of Pyramid lake. The
Warren Range to the east
makes a good setting for the
old lake, the east shore of

which has many ranches, cattle, alfalfa & hay, while onwards & up the prairie a普里特 are in evidence. Between the lava and the east bank of the lake the road drops & one, there was to climb up and around a spur of the Warner Range named "Sugar Hill", where we found some little pine in the willow belt. In a sort of sandstone which is in a pocket of the large lava plateau is a collection of remarkable weathered sandstone pinnacles, some about 25 feet high, of which we took several pictures when returning. From sugar Hill it is not very far to New Pine Valley, a town half in California and half in Oregon. From there it was 10 miles to La Pine, on the outskirts of which we did our first work of the day. We arrived at Lakeview, 5½ miles from Astoria, one 'class' o'clock. After lunch we started over and ran steadily until the climb about Sugar Hill was reached. Here we worked on a lava bench

which was largely covered with broken nodules of obsidian.
After this we worked in the
nearby pine forest or some little
time, seeing many most inter-
esting species. We ran over
there in with a thunderstorm
beating us, and came from
Foothills after 11 P.M.

Cottontail Rabbit, Harris Creek,
about 20 miles west Alturas.
In early Alturas.

Bunni's Grackles. Everywhere,
in large flocks, about ranch
wildlife, etc.

Yellow Headed, Blackbird, Bay
Cuckoo, most skirts of Alturas.
Mountain Bear. Many places
in south.

Meadow Lark. Numerous along
the roads.

Fringed Horned Alturas.
Cow Sustenance. H.W. Alturas.

Magpie - six at Harris Creek.
Widow. Flies at number of
places.

Swainson's Hawk. - Found at
Harris Creek.

Red-shafted Flicker. Saw at Bear Creek.

Lemur's Woodpecker. Found small lots between Bear Creek & Lakerine.

Red-tailed Hawk. Saw at Gardner River. over at sugar mill. Sparrow Hawk. Regularly & scattered along river, particularly about cultivated tracts.

Crow. Saw flock at Sunday's Run, etc.

Aug. 25, Alturas to summit of Cedar Peak, Warner Mts., Modoc Co., California.

Film 6 #1 We left the auto at 9.05 A.M. with looking east the sun rising and car on road in surprise been using, we climbed east over valley from the Cedarville road to the pass summit of Cedar Peak. in the Warner mountains south of Cedar Peak, which was an objective point. The road first climbed

#2 Looking W. on Pitt Run of the lava escarpment then valley from a center of more juniper country hills. short distance. which quickly gave way to first pine, and this to fir and aspen in the creek ravine as the road steadily climbed.

#3 Looking S. across road Warner Peak,

Worm
Mts., from
abov.

Same date.

4

Looking N.

From lake

from ditto

Same date

5

Habitat
of rare
actinid

In Cedar Peak

at 8100 feet.

2.00 P.M.

1/25 16 stop

6

Cedar Peak

from E. canyon

at 7300 feet.

2.22 P.M.

1/25 16 stop

The summit on the road is 8200 feet, and we got out the car, striking out up a canyon which led up to the southeastern face of the peak we had as an object.

We soon found the going was very heavy, the trail's end sheep trails which led nowhere in particular, while the rock work, due to volcanic pinnacles and ledge

was very heavy, particularly between 6500 and 8000 feet.

The slopes otherwise were very steep, loose dirt between the rock outcrops, and with some patches of manzanita chaparral and much sage. It was a very hard pull up my mind, but I

finally made to peak (8100 feet) which we thought from below was the main peak, only to find that was a half mile away, along a hog-back which dropped almost 200 feet and then climbed about 100. This saddle ridge had about five groups of pine-

nuckles which made climbing particularly mean. However, I secured no record of a most remarkable district in this stretch, no more of which

were seen. The views from the top were wonderful, & hasta standing out against the trees in a most incongruous manner, while in the dim distance, on 180 miles away, we could make out the outline of Mt. Lassen. To the west Superior Valley lay boro up, to the west Cedar Peak in the Warner, to the south Warner Peak 4350 feet, in the same. The summit of Cedar Peak is 8400 feet elev. We dropped down to the car in almost an hour of scrambling, slipping, up and down slopes, through chaparral & sage. We were very tired when we reached the car, and on our arrival in town we prepared a thigment of material for sundry hours.

Tern, black head-red bill, seen at lake east of Alturas - seen there also Aug. 23.

Great Blue Heron. Two at least. Brewer's Blackbird. Moderate abundance about ranches. Parrot-tail Ranch numerous, one on top of Cedar Peak.

Nig to Hank. Numerous are
Alturas at corners
Clark's Crv. One which on
summit of Cedar Peak.
Rock Men. Dev. on ditto.

Aug. 26, Alturas, California, en route to
1922. Tonopah, Nevada.

The narrow gauge from the
north arrived at Alturas at
9.35 A.M., on time, and we left for
Wendel in the dot. Along the
South Fork of the Pitt River,
which we followed for about
twenty-five miles in many
sloughs, with numerous water-
birds. Lunch at Madeline was filling
but rather rough, and the
interminable climbs in lava
wells ended at Wendel at
3.15 P.M. on time. The Southern
Pacific Train from Mokelumne
left Wendel at 3.50 on time,
and the ride down the west
side of Pyramid Lake, just
before sunset, was beautiful
in the extreme, backed as it
was by the rainbow of a storm
over the lake range to the
east. At Fernley in said
we found the Tonopah train

from San Francisco, having a fine T-bone steak and most wonderful melon for dinner. Moran wandered into the brush and got the most northern records on *Hesperotettix*, *Acrida dorsalis*. Our train came along at 11.00 P.M. and we were comfortably in bed & asleep.

Hawks - 2 lots on S. fork of Pitt River
 Bittern - flushed on dells.
 Killdeer. Everywhere along dells.
 Brewer's Blackbird - Abundant everywhere & in pastures on S. fork of Pitt River.

Great Blue Heron. - Saw on dells.
 Magpies. Six along dells.
 Marsh Hawk. One. "

Rail. sp? - Seen flying alone, dells.
 Apparently Virginia rail color pattern
 white Pileum. Numbers on Gramed Lake
 full sp.? Only a few in same.

Aug. 27, 1922. Tompah and Millers, Esmeralda,
 When I got up at 5.30 A.M. we were
 about 8 miles west of Tompah, and

59 from Millers up the long grade
Crotaphytus into the Tompah hills the train
 Millers, crawled for an hour. It was
 Esmeralda about 8.30 before we managed
 Co., Nevada. To get emerged to the hotel
 (W.C.)

Film 7 and we were fair to savour
 # 1 for breakfast, which we had at
 Tonopah a very good place, good caroberry
 bush at this. Tonopah had a big fire
 Tonopah. Not a few days ago, which
 9.00 AM. burned out the famous old
 Oct 11-16 "Casino" and the restricted
 '105 district. It nearly took the
 # 2 railroad station and con-
 ditions being there about. If the wind
 at Tonopah, had been from the West
 instead of the East the were
 very mild probably have been
 stopped. We got a good machine
 and spent the morning in the
 hills east of the town, about
 and east of the Tonopah Belmont
 mine. The results were
 interesting but scarce and
 seemed to indicate that Tono-
 pak is too high to get the
 marked condition of the austral
 fauna. We were searching
 for. After lunch we took the
 same machine and drove
 and went fifteen miles down
 the grade to the West to the flats
 north of the mine at Willcox.
 Here, at 4600 feet elevation,
 we found the southern fauna
 far more marked and we

scoured Zacynoptera, Poecilothrix, Perdita, Perdromus etc., etc. and all others had a day letter affixed. After a good dinner we put up material, repacked and prepared to leave in the morning bound Tuesday to San Francisco co.

Aug. 28, Tonopah, Nevada, en route to
1902. San Francisco co, Cal.

Travelled all day, via Mina, Hazen & Truckee, over Homme Pass. We left Tonopah at 9.10 A.M. en route through San Francisco, Pullman. There was much rain on the way, around Mina - Horne. We were delayed over an hour in the night by burning down sheds above Truckee.

Aug. 29, We reached Oakland Pier about 8.45 A.M., checked our bags, called Mr. Grinnell's name and found he was in Berkeley, then breakfasted. This finished we went out to Berkeley to see Mr. Grinnell and had a very pleasant visit with him at the Museum. His assistant Dixie

gave us much useful information regarding making Telescopi Peak. We dined with Messrs. Grinnell and Van Hyne at the Faculty Club. As each had lecture at one o'clock, we parted with our delightful hosts, and hurried back to Oakland, across San Francisco Bay & city to Golden Gate Park and to the Museum. Our greeting from Mr. Van Hyne was cordial in the extreme, and at the urgent invitation of himself & his good wife we had a most pleasant and enjoyable dinner with them. The hours passed very too rapidly, and with some regret at leaving always hospitable San Francisco, we wound our way to the Oakland Pier and boarded the Fresno sleeper.

Full (Western California) in number in San Francisco Bay!

Aug. 30. En route to Coalinga, California, and work there abouts.
1922.

We were off at Fresno shortly before seven and got a hasty

After breakfast, re-checked our camp
 kit and climbed on a train
 Bush for fresh fruitation, leaving at
 8 A.M. We ran through vineyard
 by-cultivations and orchards, by prosperous
 est. as "Farms" "Mother, the Home of the
 Cal. as "Crusoe Raisin", and another sign,
 4.05 P.M. "The Home of the Peach". At noon
 trip up night invitation we had a short wait,
 which may be supposed by getting
 dinner and things. It was a
 two hours ride to Coalinga, at
 first through orchards & vineyard
 then the country became dry,
 with the sun-baked yellow grass
 so characteristic of much of
 California, then the hillsides
 range and the rest of oil
 derricks north of Coalinga came
 into view. At Coalinga we
 were soon comfortably quartered
 at the Petrolia Hotel, and then
 proceeded to get a good lunch and
 a machine. We got the latter but
 not a man for the afternoon, so
 Major took the wheel. We worked
 out in about seven miles to the
 east and had excellent success,
 although the variety of species
 was much limited. After

since I stuffed material and
Vernon made a rather disapp-
pointing fur with a machine
- iight. This day was pretty hot &
the heat was trying.

Crow. Number at Coalinga.
Brewer's Blackbird. Large flocks
at Coalinga.

Penned Lark. Numerous small
flocks out of Coalinga.
Roadrunner. Two, short
distance out of Coalinga.

Aug. 31, 1922. Coalinga, California to Priest
Valley, Diablo Range and return.
Tues. 7. We left the hotel about 8.00 AM.
#6. with a large Studebaker car and
headed for the higher sections
habitat of the Diablo Range of the Coast
of the Pacific Range to the west. We went
west, up Alcalde Canyon, past the
Tedalen. deserted town of Alcalde,
& now Med. steadily climbing, up into
Priest Valley, the broader portion of the
2600 feet. same drainage channel,
1.30 PM. which is called Waltham
Creek. We passed from the
bare semi-desert hillsides
of the Alcalde foothills to the
higher sections where
fir-wood and yellow grass,

Oct. 16-22.

John S. This with a smoky-looking
 #1 pine and large areas of
 burning up chumise, became predominant.
 Wetham we worked at several stations
 creek N.W. in each apparently marked
 from 1800 environment; at 1000 feet,
 feet. at 1300 feet, at 1600 feet, and
 3.00 P.M. finally at 2000-2600 feet,
 betw 16 & 22 where the divide between the
 San Joaquin drainage &
 #2. When Wetham Creek was left behind
 across and we entered Priest Valley,
 ditto which drains into the
 (not). Salinas River. Work was in-
 some interesting and profitable, but
 down slow and tedious. Much
 #3. Some important information was
 down secured on a number of species.
 ditto Our intention had been to
 (S.S.) go for the upper slopes of
 some Center Peak, which turned to
 data. the east of where we stopped,
 reaching a height of over
 3500 feet. It was evident,
 however, that the chumise
 extended widely to the top
 and no changed condition would
 be encountered. Inquire if
 a Priest Valley farm house
 destroyed the information

that my impression regarding the extent of charnise in Central Peru was correct, and also that it was extremely heavy and difficult to penetrate. The charmed was our greatest annoy-
ance in collecting, new net bags soon being stiff and rubbery. We were back at Coalinga about 5.00 P.M. and our whole evening was taken up in preparing material.

Anthonomophiles, very common above about 1200 feet.

Calimnia impuncta. Numerous in the torrha, i. e. above 1500 feet.

Bluebird. Quite a few above Alvarado Canyon.

Sept. 1, Coalinga to Bakersfield, California.
1922.

We were up at 5.45 A.M. and after a very substantial breakfast we left via train at 7.05 a.m. for Goshen Junction. Changing there we travelled south by Tulare to Bakersfield. We arrived at 11.10 A.M. and shortly

were installed at the Southern Hotel in comfortable rooms. A conference with the man who brought us from the station resulted in his engagement to take us out for the next three or four days, then some lunch and getting our mail was in order. In the afternoon we worked at several localities along the San Joaquin Road, about eight miles out, in dry yellow grass, in a spiny bush and along an irrigating ditch. The results were most satisfactory, getting series of two species which were very desirable. It was a hot day and the sun was a very warm one in Bakersfield, so that packing material and writing letters was not a wholly pleasing diversion.

Winnington. Numerous litters.

Cocanita - freshen.

Burnning Hill. One near Stamford.

Crow. One near Stamford.

~~Northern~~ ^{Widow} Pralope (no signs or much) One in ditch near Bakersfield.

Sept 2,
1922.

Bakersfield to Walker Basin,
southern Sierras, and return.

I left the hotel at 8.00 a.m. with the same driver we had yesterday afternoon. We followed the excellent, well built road over the Tehachapi Pass east to Caliente, to reach which we were climbing for quite some distance. We worked at Berra, below Caliente and about Caliente. From the latter place we followed up Caliente Creek Canyon for several miles, then turned directly into the hills and climbed steadily, up a most beautifully graded road, up - up, until at four thousand feet we started to drop down to Walker Basin. We worked at 4000 feet, with no little result, also at Walker Valley with similar results. The timber above the lower canyons is scattered oaks with numerous "Dodge" pines. Our lunch in Walker Basin consisted of one large casaba melon, which was sufficient to fill us up for a while. The return down the grade was made without

noteworthy incident, and we were back at Bakersfield shortly before four o'clock. Morgan then spent considerable time in securing information regarding Mt. Pinos, which we wished to visit next.

Golden Eagle. One flew close to car near Caliente - splendid view.
California Woodpecker. Numerous.
at 4000 feet near Manzanita Basin.

Sept. 3, Bakersfield to Horoney's Ranch,
1922. Sequoia Mts., Ventura Co.,
Cal.

We left Bakersfield at 8.00 A.M. and using the same Cadillac and driver we had yesterday we travelled due south across the southern end of the San Joaquin Valley, thirty-one miles to the foot of Cajon Canyon. The road is straight-away for eighteen miles and all the way to Lebec is a magnificent highway of concrete, splendidly graded! At the foot of Cajon Canyon the road climbs in perspective to an easier grade up

the canyon and then for
ten miles you are steadily
climbing among splendid oaks -
as pretty a piece of really
natural country as I have seen
in California. At Lure we
turned due west and took a
mountain road for about seven
miles, steadily climbing,
and after several inquiries at
cabins we stopped at Horner's
Cabin, at about 5000 feet, and
relatively close to Mt. Pinos,
our objective. Mr. Horner
said he could take care of us,
and started in by giving us a
good dinner. In the afternoon
we worked the vicinity, with
good results, and under Mr.
Horner's direction, we went
up to Bear Trap, the point
from which to begin the ascent
of the mountain. There was one
bad bog place which strewed
the Cadillac so we decided
on the other approach in the
mountain. We shared the tent
of Mr. Chiu, a well educated
Chinaman of Los Angeles, and
we did well with nothing Earth
for a bed.

Sept. 4,
1912.

Hornings Ranch to Mt. Pinos
+ Return to Bakersfield, Cal.

Time 8.
4

Morn up at 5 am and after
a hearty breakfast departed
Pinos on with 6 parts of deer hunting, including
summit the summit visit old Mr. Horner,
Mt. Pinos. To the head of Seymour Creek at
first stop ab. 6000 feet. Here leaving the
old 11016 machine, M. the son-in-law of old
Mr. Horner and myself started
across country and struck an

5
Loring C.

old logging grade which ran
down from to the summit of Mt. Pinos
slope of Mt. It was well graded, the slope
Pinos at was easy, but the way was long
ab. 8000 ft. as it worked around the

16 1/2" 16.00 AM

middle of the south + east slopes
and then went to the north

6

After
After
After

side and up a long ridge leading
to the upper portion of the mountain.

It was approximately six miles
to the saw mill at the summit,
the latter reader me of a number
of rounded knobs projecting
from a narrow, ridge. The bulk
of pine carried to the ridges of

the summit but the higher
ridges were well supplied with
fir, some of very large size.
The summit is from 8000 feet clear,

and the view from the top of
the ridge most magnificent.
To the S. E. we could make out
the peaks of the San Bernadinos
- San Jacinto range, while the
San Joaquin to the north was in
a haze. We had very good luck
collecting, particularly on the
way down when we took a series
of Cinerellis on ~~steep~~ craggy
slopes of white granite. We
were back at the house before
one o'clock and by 2.30 had
packed & started back to Bakers-
field. We stopped at a wash a
short distance before reaching
Lebec and in about forty minutes
took out about 150 specimens of
a very considerable number of
species, & genera such as Socilo-
tellix, Psychostax, etc. It was
in fact one of the very richest spots
we have ever worked in Cali-
fornia. We were back in Bakers-
field about 5.30, cleaned up,
dined, prepared our cut material
and at 9.00 P.M. were in the
sleeping car to Mojave, then
up to Laramie & Denver.

An dubious weather. One look in
the air at night as

Pygmy Nuthatch. Found on Mt. Pinos in
groves.

Macgillivray's Warbler. Found in
groves on Mt. Pinos at 7,000 feet.
S. good view.

Cross. Thr. Bktw. Found in Canyon
& Bumfield.

California Towhee. Numerous
at Mammoth - on Mt. Pinos.

California Jay. Numerous, ditto.

Sep. 5. Tehachapi to Trona, Cal.
11 a.m. We reached Mojave at 6.30 A.M.
an hour late, as for some
reason our engine broke down
going up Tehachapi Hill, so
we planned and planned, &
stopped & started. The Durango
train had waited, so while
they were fixed we our baggage and
then got some breakfast for the
two of us, I struggled with
tickets & things in field tent.
At Seaside we changed to the
Trona train and at eleven we
reached Trona on Seaside
Lake, the site of the large plant
of the American Trona Corporation.
Armed with a letter and telegram
we sought out the manager and
with ~~other~~ utmost courtesy
he placed a splendid room
at our disposal and arranged

so that we could eat at the company's mess. He also assisted us in getting a man and car to make the Panamint trip, so that in two in the afternoon all the real pianos had been successfully laid. We spent most of the afternoon writing between Drama and the nearly 10,000 ft. slopes of the Argus range. In the evening we left others, boiled down our outfit and wrote letters.

Coyote. Ave betw. Seales & Drama.

Burrowing Owl. Ave betw. Major - Seales.

Sept. 6, Drama to Charcoal Kilns, Wild Rose Canyon, Panamint Range, Inyo Co., Cal.

8 AM. We were up before 5. or 6 AM. man #1 Jiles - aged to get a bite of breakfast atop Peak and were on our way a few minutes from Panamint after six. Our driver and com-
bally s. parison, whose name is H. W. Smith Hickinson, is a Louisianian by Wild Rose and a delightful companion. Canyon we gradually climbed north
8.45 AM. up the valley in which Seales
betw 10 & 12 mi.

Film 9

2

Lake is situated to near its north
Wild Rose end, then climbing by an easy
Canyon walls the pass to about 3600 feet, with
at ab. 3000
feet. ~~from~~
~~spring~~.

11.00 A.M.

Ditto 10-22.

1/25

3 Up Wild Rose Canyon, it is a very steep and sharp.
from time
spring 3600
feet 11.40
A.M. 16

4. Home
ditto
Same date

5
Down Wild
Rose Canyon
from 5500'
looking due
W - Sierras
in distance
1 P.M.
22 - 1/25

6
Last kilo
Wild Rose
Canyon
6500 feet.
2.10 P.M.
16 1/25

Film 10
1 Home
Wild Rose
Canyon from
Kilometers
same date

Lake is situated to near its north
Wild Rose end, then climbing by an easy
Canyon walls the pass to about 3600 feet, with
the Panamint Valley spread out
before us like a map, dominated
to the east by the bulk of the
Panamint Range, capped by
Telescope Peak. From this pass

drop to the valley slopes and
we went down carefully. Ballarat
is in the east side of the valley,
and we crossed the salt and
mud flat in the 1000 feet
area, getting to Ballarat shortly
after eight. Ballarat has a mill
and about fifteen houses, but
only one family ~~to~~ was there.
The man helped us with a
gasoline can to replace one of
ours which got mashed up a
rock coming down the hill.

From Ballarat we worked north
following the road through
Indian Ranch to the north of
Wild Rose Canyon, twenty
miles, a lot of it bad wash
which painful as suggested
Emigrant Wash of unpleasant
memory. Starting up Wild Rose

Feb. 2nd

With the Chardell pulled splendidly up to 3600 feet in the lower wash, Sierras. At 7 PM. a good running stream, which has been partially piped. We mine 12 or 16 steps. up we worked, 4000 feet, leaving the running video road behind 1000 feet and out of a narrow canyon into a broader valley, up which the road was made in the wash, there were narrow and steep sides, up, up to the red charcoal kilns at 6000 feet, where we camped, surrounded by pines & junipers, which covered all down below 10 thousand feet. After a good lunch, we an and started to the head of the valley, working and exploring, and climbed to the draw at the head of the canyon 8000 feet which ends down into Heath Valley Canyon. but soon as spread Heath Valley, with all its iron display, the Brushy Range with its stripings and far off to the east, but sharply defined, the Charleston Range, about 100 miles away. It was one of the most stupendous performances we could imagine.

We returned to camp shortly after 4 and then packed specimens and had supper. The instant the sun dropped behind the hill a marked chisl came into the air, which increased as time rolled on.

Gambel's
Drail. ^{Downs. Numerous in Wild Rose}
White-crowned
Lark. ^{Canyon.}
Rose Canyon ^{at Summit pass at 8500 feet.}
Cuckoo. ^{Lured at ab 3000 feet}
Wild Rose Canyon.

Sept. 7, 1922. Coal Kilns, Wild Rose Canyon, Panamint Mts., Inyo Co., Cal.

To-day Morgan and Dickinson on their way to try to reach the summit of Telescope Peak (11000 ft.) and back in a day. Personally I realized that I could only pose a drag in the party, so I climbed only the main ridge at the head of the canyon to 8500 feet, then followed it north to a peak 9000 feet high, from which one could get a more comprehensive view of the country to the east. While the men had done the whole evening before, cloud masses had covered much of the sky, and the morning was overcast and threatened.

rain. It was quite cool, in fact cold, until nearly nine o'clock. The view was much obscured by ~~the~~ cloud masses, but the Providence Range could be recognized far off to the S. E. in addition to those mountains located yesterday. The peak I had climbed had a steep face toward Wild Rose Canyon, with a number of slides of large rock, but I went down over them. At noon I lunch by myself, washed dishes and then spent most of the afternoon endeavoring to collect in the general vicinity of the coal kilns, but the results were worse than pm. The Telescop Peak party returned about 5.15 P.M. after what Morgan said was the hardest climb he had ever had. All were very tired and bed saw us by eight o'clock.

Golden Eagle. M. saw two on summit of Telescop Peak.

Pon-mitt. Hand about camp in evening.

Pon-mitt. Hand about

White-throated Swift. Numerous up on Clark's Crow. Found in ^{ridge.} ditto. M. saw me at 9500 feet. Red-shafted Flicker. Once seen, coming down from ridge.

Rufous (apparently, a few red color was rufous) Hummer. One dashed about camp at 0.00 a.m.

Rock Wren. One poking about crevices
in one of old kilns.
M. saw several at 9000 feet
on ridge of Baldy above
pinyon.

Sept. 8, Chawal Kilns, Wild Rose Canyon,
1922. Panamint Mts., Inyo Co. to Trona,
Alt. no. Learles Lake, California.

60. We were stirring at 5.00 AM. and
Crotalus soon had breakfast started. The
Wild Rose right had been by us means as
Canyon cool as the previous one, so it was
Panamint possible to sleep with greater com-
Mts., Inyo fort. Breaking camp was quite a
Co., Cal. task, particularly when water
5200 feet. conservation to allow for possible
Blackish accident must be considered. The
inside clouds were rather heavy about the
of head mountains; and before the day was
contrasted in the country we were leaving was
strongly being drizzled, as we could see
well general from a distance. We started down
climbing reddish the canyon at 7.45, working steadily
but slowly, as it was all work on
comprehension and careful running,
on account of the terrific grades
and the strong winds. We worked
several places on the way down,

Film 12

1

Cross to Wild Rose Spring in filled all water
Sierras from containers, and then started down
Wild Rose
Canyon, 300
feet above
kilometers
7.05 a.m.
built 1880
16 stop.

miserable section of the road
between the canyon mouth and
Indian Ranch. We had tire

2

Coming down
canyon from
Wild Rose
spring.

10.20 a.m.
16 stop 125

trouble part way, set foot into Ballarat
about 1.00 P.M. Here we lunched
and worked a while in the Siliconia
in the creviced, ^{hummocky} "valley" mud, which
extends south of this pitiable

place. We left Ballarat about two,
crossed the flat and climbed
the slopes to the crossing of the
Sierras - into ranges first. As the
with a heavy storm was working
down from the neighborhood of Wild

3
General
view of
Ballarat

Rose Canyon across the Valley,

burning the dust before it in a
great sheet like smoke, throwing
it far up on the east side of
the Sierras Range. See Matherungs
Peak, in the Sierras, another

4
M.H. at
Ballarat

storm was raging. The grade down

to the Bear Lake Valley is an
unholy one from the Panamint
side, as it is two miles long and
in some places is 19'; while it
is so rough it is like a series of

Film 13

1

Panamint
Flat near
Ballarat.

2.15 P.M.

160 stop 1/25

steps. Just on the top we descended we had picked up a nail, probably at Ballarat and punctured a tube. This took some time to repair, but we collected to advantage in the meantime. We ran into Irmo shortly after five, we were installed in the room we had been in before and then had our dinner. A three days' beard then required removal, and putting up our catch took until nearly nine.

Storm on
Panamint
valley to
north from
grade into
Searles Lake
valley.

ab. 4.00 P.M.

3

Across
Panamint
valley toward
Tele scope
Peak from
top of pass
to Searles
Lake Valley.
ab. 4.00 P.M.

Aphelocoma Jay. Saw one way down Great Horned Mtn. Heard about Wild Rose Canyon at kilo camp and we seen twice in the canyon at Wild Rose Spring.

Mourning War. Lev. in Wild Rose Canyon.

Teal (sp?) One bunch in salt pond at Ballarat, with single unidentified larger duck.

Sept. 9,

1922.

Ac. no. 61

Vicinity of Irmo, San Bernardino
Co. and en route to Los Angeles,
Cal.

CallosaurusIrmo,
Searles Lake,
Cal.

After a splendid night's sleep and a good breakfast we moved off to the north of the Irmo

Film 13

5. Working plant, collecting in lake beds and up-above lower outskirts slope of the Indian Jo's Argus Range. It was quite hot garden, and results were but fair.

Argus Range. After lunch we managed to get 2.40 P.M. a man to take us in his truck. 16-22. Chevrolet up as far in the

^{1/25} Indian Jo's garden Canyon

6. Working down worked up to the garden at ditto. about six hundred feet above same place where we had left the car. The

^{data} Argus Range is extremely rough and the canyon was more & less smooth, while the heat was intense. Indian Jo's garden has apples, apricots, figs and an enormous grape vine, which latter seems to be dying from lack of water. The water has been piped out for the Borosolay plant. Going up the canyon we caught almost nothing, but coming down we had fair luck. We were back at 4.15 P.M. and materials & bags were packed, clothes changed and dinner abouted in time to be on the train when she left at

6.00 A.M. The ride around the side of the canyon, just as darkness fell, was beautiful in the extreme. We reached Searles about 8.00 A.M., and at 9.45 we were on the Los Angeles sleeper and soon enough asleep.

~~Willy~~ ~~Family~~ ~~fruit~~. We found nearly a hundred houses in Argus Range. Raven (the large r. wh.-n.) sang about edge of lake flat.

Rock Wren. One in Argus Range canyon.

Turkey Vulture. A number soaring over Brona in A.M.

Sept. 10, Los Angeles to San Diego, Cal.

19 M. The morning running into Los Angeles was beautiful, cool and pleasant. We arrived at 7.45 A.M. and Dickinson, who came down from Brona Friday night, was at the station to meet us. We were soon over at the Santa Fe Station and having a good breakfast. Our plans were soon made, and it was arranged that Dickinson was to accompany us as far as El Centro at an agreed rate.

After arranging to meet at about one o'clock we parted, Morgan and I to search for a shop in Chinatown open on Sunday. Los Angeles was very dirty and the Mexican quarter, through which we had to pass, looked particularly disreputable. Having located a shop and purchased several kimonos and other things, we went back to the Hayward Hotel, wrote letters, had lunch and at 12.50 P.M. Hickison met us and we started via machine for San Diego. Our route was via Whittier, Anaheim and Santa Ana, thence endless range of walnut groves, past old San Juan Capistrano and then along on near the ocean. It was a beautiful trip, and we reached the bluffs at Torrey Pines just as the sun set in a blaze of orange, while it tinted the sky and sea pinkish and purple. We were unable to use the road through La Jolla, on account of repairs, so we had to use a back road down Rose Canyon. A fine

brushed by us in a narrow part of the cañon, fired to edge by a truck in front of us and went down off the road, through a barbed wire fence, and down a steep slope, but none turned over and no one was injured. At a mile below this in paved one, a horse car, which had been northbound, which had gone off and turned over on its side, but injured no one. We reached San Diego at 7:05 P.M. and were soon most comfortable quartered, and later dined, at the U.S. Grant Hotel.

Terms. Several in lagom near Helmar.

Brewer's Blackbird. Large flock on meadow betw. San Juan Capistrano and Encinitas. Large flocks with dark mottled-brown walking along beach just below San Juan Capistrano.

~~Hot~~

Sept. 11, San Diego, Cal. to Tijuana, 1922. Baja California, Mexico & return.

Film 14

#1 We left the hotel at 8 A.M. with
Brachyrhynchus-Blairidam and the car and headed
sara habitat toward Dz'a Guama. On quite a
Dz'a Guama, few miles, through National
Cal. 2.00 City, etc. virtually everything
P.M. is cultivated, the trees chia berry

#2 - Araucaria?  At Chiquito-vista we found a piece of nearly virgin land in which we crossed the Rio Juana for some time, to our great advantage, as I took Emoophis in hills coronatus. M. caught a splendid horned toad here, which I will endeavor to take home alive to America. Rochester. From Chiquitovista we ran over marshy land of the Rio Juana River, near the little settlement.

1/25 near the little settlement
of San Nicolas, which is virtually
a part of the overall American
village of Tia Juana. We worked
in the dry wash and the sandy
waste land there, then ran
on a very short distance and
examined a promising hill
slope, largely covered with
a charrisse like bush, a species
of Rhus and ^{Scattered} Cholla, nopal
and yucca. Here on spent few

hours working and secured a
new truck add'd, probably a new
one added to 14 processors.
There being no place on the American
side where we could get a
decent meal, we registered our
engine number with the American
Customs, quickly passed the
Mexican authorities after only
a few words of explanation and
then crossed the bridge to the
Mexican town of Tijuana. I
say "Mexican" with reservations,
as it is mainly a set of dance
halls, cantinas and dens managed
by Americans, Mexicans and
Chinese. We had dinner at a
restaurant, a "Mex-Chinese affair",
with beer and "topo chico", while
a resplendent Mexican officer, with
sabre and a polished brass gorget
about six inches long had a
convinial glass with some friends
at a bar in back of us. A flat-
faced Pigie with a conspicuous
"first national" in his uniform
rolled nose tried to draw up
business, but most of her
class had come to San Diego to
see the circus, which was in

from for the day. Eating done, and hickey & M. beating a quarter machine out of \$2.50, we went back to the American side and worked the hill just north of the line and east of the road. Two hours were spent there, intensively examining and ~~dead~~ collecting, the results of which were of great value, chiefly through secured a male (M. H.) and a female (J. R.) of a Brachygymnus arana or an Ino arana, in any case new to the U. S. and probably to science. From Diaz, Guanajuato ran north, varied with a bad fire blow-out, to the south-end of the Coronado Beach spit, working two places getting a good series of a desirable Trimetropis and a large one of the very poorly represented Cercocephalus spinosus, for which this is the type locality. Driving up through the first teeth, we passed through unusually beautiful Coronado Beach and its garden and then on the ferry. The bay was beautiful as it just before sunset. Aestuaries of a number of at least fifty were

jumped about the bay, one of the old cruisers of the "Colorado" class, a transport and supply ship, as well as a number of auxiliary were also in harbor. We put up material in the evening for nearly three hours.

Millet. A number on beach in Colorado Beach.

Cat. Brown Pelican. Several in harbor - close in. Full, like large herring, with dark mantle and long black spot at angle of lower mandible. Numerous over bay - several new close in.
 Brandt's Cormorant sp? One flying, close to shore in San Diego Bay.

Sept. 12. San Diego to Campo, San Diego Co., California.

We left San Diego at 8.45 A.M. with all of our belongings and proceeded by way of East San Diego, El Cajon, Jamul, Sulphur, Potrero and Campo. At Jamul very good sized mountains begin looking N. so bid in evidence all around me, but on account of a high fog we could not see them as satisfactorily as we could have

Film 13

3

usual conditions
at Potrero,
Cat.

2.45 P.M.
11 stop. (Cloudy) $\frac{1}{2}^{\circ}$

wished. We worked at Janus in several environments, then moved along to Hulgura, which is at about a thousand feet elevation. Here oaks begin to be more in evidence, and we worked in this environment for some time. Leaving Hulgura we climbed for a very considerable distance out of the valley of Hulgura Creek and then dropped down into another valley, then again up a far longer grade to Potrero, which is at about 2500 feet. At Potrero we worked and also wished. Here the Chamise (Adenostoma fasciculatum) puts in its appearance and we spent quite a little time in it, with a Moscas as return. From Potrero it is eight miles to Campo and we worked along this section at several points, reaching Campo about 4.30 P.M. We were soon installed at the little hotel and had a filling supper. Campo is just a few houses and a store, but it is on the r.r. (S. F. & A.) and is about $1\frac{1}{4}$ miles from the Mexican line.

Bruin's Blackbird Encountered flock
near San Blas.

Sept 10.

Cat.

Red-winged Blackb. few near
Delgura.

Dark Thrasher. See toward evening
at Camps Creek at Campo.

Turkey Buzzard. Several en
route.

Pewee. Rough legs. One, in immature
plumage, flushed just in front
of the machine near Campo.
Feathering well seen.

Sept 13. Campo to Hubbard farm, Hescares
1922 San Diego Co., Cal.

We awoke up about 6.45 after a
splendid night's sleep and up
hurriedly after breakfast we started
north, bound for the vicinity
of Hescares. In first, brown,
darkish sand near Campo for nearly
two hours, in chaparral, rabbit
holes, under oaks, sandy wash - a
gravelly (granite fragment) slope.
Running northward we gradually
climbed a long grade and then
dropped down into another valley,
one of the tributaries of Cottonwood
Creek, up this to Buckman
Springs, where we struck the
main San Diego-Tijuana Valley
road. Then we climbed up to

over four thousand feet elevation,
at the junction of the road going
east into the Klamath Mts., then
down again in a succession of
third curves, but fortunately with a
very good road. At Guatape, at
the last foot of Guatape Mts. we
walked for a good part of an
hour getting some interesting
material, then ran on and down
to Pescadero (3500 feet). At the
little store there they directed us
a mile to the Hubbard Grove
camp, where we secured excellent
accommodations, a cottage cabin with
two bed rooms, one with an extra
cot, and a satisfactory bathroom
and toilet. We had a very good
lunch and then spent several
hours working in the neighborhood,
woods slopes, valley bottoms and
stream meadows. Morgan had
enjoyed a jocund pleasure
camp at Camps, and he tried
it up in the evening.

California Jay, A mtn about
Pescadero.
Bluebird, often drinking
in creeks.

California Mockingbird. Several at
Hescomes - hunting
like a flycatcher.

Raven. One out in Cottonwood
Creek.

Brown's Mockingbird. Great flock
along Cottonwood Cr.
Kildeer. Seen along Creek at
Hescomes.

Goldfinch sp.? A number at
Hescomes.

Sept. 14, Hardbird Days, Hescomes to
1922. Laguna, Laguna Mts, San Diego Co.
Alone. Woke up at 6.30 AM and had
62 an early breakfast. Going toward
Cuyamaca Peak over course via
Laguna, trail to the Julian road at the
Laguna Mts., crossed, then due north past
S. D. Co., Lake Cuyamaca Lodge, another summer
Cal. camp, down into the valley of
6000 feet. Hescomes. Creek, then up a long
Tues. 13 grade, until we were relatively
#4 close to Cuyamaca Peak. Then
Looking N. turned
around
Surficial
Rocks from
top of
Laguna.
Peak.
11.15 AM. pine, with much cedar and
fairly some fir (Abies). The

- #5. first portion of the climb was
 broad easy, but we left the road and
 crossed thick scrub directly for the peak,
 then the going on 45 or more degree
 slopes was very hard. Finally we
 reached the summit (6511 feet).
#6. with its forest fire watch station,
 took S.W. and the views from the summit will
 no doubt repay us for the climb. To the
 west low mountains and San
 Gorgonio Peak are plainly
 visible and to the north of
 #7. San Gorgonio we could see Santiago Peak in the
 San Gorgonio area. To the northeast
 was Cajon Pass, to the
 east the valley at Hesperia.
 We had left earlier in the morning
 the ridge of the Laguna Mts. and
 the Salton Sea and the Imperial
 Valley from us. Pushing down
 again, working at favorable
 spots on the way, we reached
 #8. the machine thirty after twelve
 o'clock, and started back to
 #9. Cabazon, where we had a
 very satisfactory lunch. Getting
 up at the same again, headed
#10. south we were down on roads we
 had along had covered yesterday,
 Laguna through Pine Valley and up
 into

to Laguna Junction, where we turned off to the east on the narrow winding grade which is the sole way for reaching the Laguna Mts. The road is dangerously narrow, with long slopes beneath and narrow sharp, blind curves. To make it worse the road soon became very rough and stony and it was a relief to reach section after a sudden meeting did not impede on the edge for one of the cars. It was $1\frac{1}{2}$ miles largely up hill from the junction to Laguna Post Office and camp at an elevation of 6000 feet. We were assigned to a tent here, then walked off for a half mile or so to a point where we could see off on the Salton Sea and a portion of the Imperial Valley. The east side of the Laguna, which are really a plateau continuation of the San Gorgonio Coast Range, is quite sheer for some little distance, and suggests on a smaller scale the drop from the Panamint into Death Valley. Just a short distance on the edge one could see across, a

trees unknown on the San Joaquin side of the Coast Mts. In low thickets of chin-oak, some chastea and manzanita, at the summit of the ridge, we had some interesting collecting until nearly evening. We had an excellent dinner and then packed material until after nine o'clock.

Aphelocoma sp. Numbers at Los Gatos.
Big-crusted jays. Great numbers at Laguna and at Raymond Peak, in pine & fir.

Bluebirds. Many at Laguna.
Grackles. One in brush at about 4000 feet on route.

Californian Tow-sprinklers, seen all day in scrub - very common at Laguna.

Mistletoe (with mahogany on sides of rock & gray bark) on trees at Laguna, flying down in road to search for things.

Chickadees (app. like black-crested) several at Laguna.

White-throated swifts. Along top ridge of Laguna Mts.

Sparrow Hawk. One very scarce.

Sept. 15, Laguna Beach, Laguna Mts. to
1922 Jacumba Hot Springs, San
Diego Co., Cal.

8.45 AM Woke up about 6.00 AM and
had breakfast about 6.45 AM. The
night was by no means as cold
as we had imagined it would
be, so we were agreeably surprised.
Breakfast was as good as
last night's dinner, which we felt was
due to a southern lady of color who
seemed to have much to do with
the kitchen. We were off about
7.45 and took an hour to get
down the very ticklish Laguna
road, steep and a half mile
to the main road. Then we
retired our way to Camp,
to return on gasoline power.
Lamborn we had to wait and
to lay in some gas. There we
discovered that Blackman had
failed to replace the gas tank
cap when he had started
his car some miles back. After
considerable search and fumbling
effort we found a fair cap which
completely closed the opening.
It was now quite warm and we
were headed eastward toward

Jacumba Hot Springs it steadily increased, the country rolled higher and higher, broken hills, some covered with balanced slopes on top of them and some of the valley's bottoms in part cultivated. We reached Jacumba about 12.30 after walking a mile or so west of the town. It is "a regular town" as one of its signs said, with several hotels, several eating places, bath springs, swimming pool and cascades. We got dinner at one of the hotels on the beach and rested until about two, then off to the east for the afternoon. We walked first about a mile and a half west, in what seems to be a tributary valley of Carrizo Creek, then about five miles away on a ridge, from which one has a full view of the Salton Sea and portion of the Imperial Valley. The first locality had more Coville Yucca the scrub, but the latter had more yucca, cactus and Ephedra. Material was scarce but interesting, and we put about three hours work in at

the two localities. Several hours
from now would be a long one
just on the Mexican line about
a mile south of Jacumba. In
the evening Morgan ran out some
miles on the machine to see
the flesh lamps.

Cassidita stilleri, numerous
along Laguna Pond,
California Rockplover, Common
Towhee, Laguna - Campo.

Bluebirds. Numerous about
Campo at Laguna.

Red-shafted Flicker. Common
Cactus.

Crows, Near Bushman's
Springs - flesh.

Sept. 16, Jacumba Hot Springs to C.
1932 Centrs, Imperial Valley, Cal.
There we had a most delightful
63 night to sleep, a blanket feather-
blown - very comfortable. We were up at
sunrise 6.30 and after breakfast struck
out to the East. There was but a
hill, portion of the road which was
Imperial Valley flat out riding, in
Co. Cal. we had travelled only a few

July 14

5 miles when the sun began to get
down in his work. He dropped down the
Imperial Grade starts about six miles
below the heat of Jacumba Hot Springs
finishes and then through Mountaineering
at 2000 ft it is steadily down hill, winding
around in and out along a very rugged
~~the~~ canyon at times almost a
gorge. The road has many blind
corners on it and is of poor
construction in the more danger-
ous section. By the time we
reached Coyote Mills the heat
was intense, and as we had
walked for about two hours in
the sun at these places we ran
along through the scorching
heat of midday past Selig
into El Centro. We stopped at
the Barbara Ruth Hotel, a
moderately constructed building,
but absolutely unsuited for the
region, as it lacks verandas
and has low ceilings. El Centro
was cooking in a temperature
of 119° in the shade and we
kept indoors until about 3
P.M. when we started out to
find some untouched valley
flow. This was soon sick

than done, and we drove east to Holtville and several miles beyond that town before we gave up hope. It was nearly six when we got back and while getting dinner we figured out our plans for the morning, largely based on the experience of the afternoon. The evening was outrageously hot and the hotel dinner table - was most of the evening.

Rundown. Saw about El Centro, Holtville and Crystal Mts.

Banning Crk. Saw me at Crystal Mts and a number others. El Centro & Holtville in group of three about an elevation of 4000.

Down. Wandering about El Centro & Holtville.

Sept. 17, 1922. El Centro, Imperial Valley, to Indio, California.

We were up at 4.45 A.M. planning to make an early start for Indio. After a hasty breakfast we were off at 5.50

and. The night had been informal, absolutely no breeze, in a hotel completely and suitably unfitted for such a regime, and the heat was terrific. When we started there was a little coolness in the air, which lasted until after sunup, then the regular warming up began. We travelled through Imperial, Brawley and Matuneland, all promising centers of agricultural regime but apparently planned on a more lavish and cosmopolitan scale than the facts warranted. The road was very questionable through these communities and meandering dirt roads by sections & squares between. Some miles beyond Matuneland we struck the cement road, which continued ~~westerly~~ sixty miles into Fredericksburg around the Salton Sea through a regime which for nearly forty miles has no habitation and abattores water. At Cane Spring there is a small water hotel, of very

improvising water and
some tools. We worked there
and six miles N.W. of the same
in dried working on some silt
and sand flats, with a gauze
covering, alongside of two large
yellow sand hills, the only ones
on the route. We were
enjoyed to find Ramona desert-
cold, running sun (H & R 1).
At Idas, which is a little
settlement near the N.E. end
of the Salton Sea, with date
palms, etc. in halted and under
for a while, also absorbed the
splendid lemonades for which
they are famous. While running
along the west side of Salton
Sea we had a splendid view
for the lake, which was very
pleasing. As soon as we
got beyond the lake the heat
was very great, and though
Cochella and at Idas it was
roasting. At three in the after-
noon we went out in a machine
to the canyon N.W. of the town,
in the San Bernardino Mts.,
which has a number of palms
in it. We had to make the east

mile or fort as the road was too sandy, and our flivver stuck as it was. We boarded the 9.32 P.M. train and had a hot session in upper berths bound toward Gila.

Large black hawk with distinct white band on upper surface of tail at base. One at Gila.
Wren. Numerous in Imperial Valley, at Ajo & Gila.
Gambel's Quail. Few, coveys on route.

Mallard (?) ♀ One flying up from irrigation reservoir at Gila.
Shrike. Numbers on route.
Roadrunner. Few at Gila & usual.
Star of Center - Bradley.

Sept. 18, 1922 Gila to Ajo, Pima Co., Arizona.
We went off at 5.40 A.M. at Gila, after a short, roasting sleep, all the thunder because we turned our watches ahead one hour out to take Mountain Time. The sun came up in a pink glory just as we had struck Dudley's mes breakfast at the little railroad eating place at Gila, made of an old

railroad car. The mountains
met from pink to purplish, then
gradually into their day colors.
The Arizona desert had asserted
again its irresistible appeal
which no other can equal. We
checked our camp bag through
to Phala, & got that off our
mind, then climbed aboard
the motor train, a white bus
running on railroad track
which was to take us to
Ajo. The trip was most interesting.
forty-four miles of the
creosote desert, with palo
verde, puls fieris, cat-claw,
mesquite, Sabuas-cholla, which
we learned so well. We could see
Crater Mts to the west and
Ginsight Mts. to the south. Ajo
is a modern mine ~~town~~ town
with surprising accommodations
and facilities. Its railroad
station, school, stores, etc. would
do credit to a place as large
as Tucson. We were soon com-
fortably installed and then
arranged for a machine to
carry out our plans for the
next two days. We were on

out and went on in a nearby
canyon of the little Ajo Mts.,
where we had the typical desert
canyon vegetation of Pupago land.
We had splendid luck, as the
skins can testify. After lunch
and session plucking up mater-
ial we were out again, this
time about six miles out to a
region of more grass, with
broader, gravelly washes. Here
we had even better luck, secured
the first adult *Calamaria*
ever taken with exact data in
the U.S., also many other things.
We were back shortly after five
and put up stuff & then to bed
early on account of a hard
day on the morrow.

Fairview Ranch. Are in canyon
at Ajo.

Darkey Buffard. Number
one at Ajo
Family detail. This & later,
Gila & Ajo.

Sept. 19,
1923. Ajo to Lutobagito, and return to
Alamo 64 miles
from Gila, Arizona
Mts.

Ajo to Lutobagito, and return to
Alamo 64 miles
from Gila, Arizona
Mts.

Feb 15 We awoke about 4.30 AM and we
 #1 left via machine for Jultobaguito
 general route at 5.20, long before daybreak. We
 #2 ran by which we left out through
Jultobaguito the little Ajo into back of Agos.
 #3 day out just breaking as we got
 in frontier with in the arm of the Ajo valley
Range which lies between the little Ajo
 #4 frontier Mts. He had breakfast,
 frontier Pass hot coffee from a thermos canister and
 sandwiches just before reaching
 #5 Sabino Pass. The road is fair up to
 frontier Pass near the frontier Pass, but from there
 on it is very poor. Through frontier
 Ajo Range Pass it is very stony and from that
 point it follows down a long canyon
 frontier Pass crossing immemorial washes, some
 (cont side) very large, but all had run the
 night before and the whole country
 had been well drenched. The
 palo verde and palo fierro were
 very large and luxuriant, a
 few of the many branched Cereus
 the candolatia type also existed.
 In some of the washes was seen
 of a high, vividly green grass known
 as "gymneca" grass, which, however,
 did not prove particularly good
 collecting except in Parapinala.
 Near Jultobaguito we ran through

guttata
gallita

a group of low hills known as the
Guitobagito Hills, around which
there is a tremendous movement, the
end circling into Sonora for a few
hundred yards, then running
back into Arizona to the springs, and
back of Guitobagito. The springs
are very good, coming out of solid
rock and the tank was then filled
to overflowing. Guitobagito did
not place folk as rich a locality as
Ajo, but we got at least one species
from here taken in the U.S.
You also interested, but, we headed
back about 10.00 AM. and worked
in the Guitobagito Hills, several
localities along the west side of the
Sierra Range and in foothills
there. After leaving Pinalon Pass
the view to the east across the
Ajo Valley to the big Ajo range
was magnificent, with White-
man's Head sticking up high.
Our viewpoint and the big Mts.
We were back at Ajo at 3.15 PM,
and then we had to get as much
done on our day's catch as possible
before leaving at 5.45 PM. We many
of just get everything safe, and
headed the motor to run back

to fila. A heavy storm had worked up over the country so bad. Arrived earlier in the day, and before we reached fila we had a brush with two rain squalls and went through a terrific wind storm, which tore loose our carts on one side. Within a few hours of this time I had developed a splendid cold in my head, which may have been due to the dust bath. Arriving at fila we reached through a tide of dinner and boarded the Sante Limited at 8.11 P.M., getting into Tucson at 11.45, where we were installed in the Santa Rita and round as eggs.

Santa's Quail. About half a dozen wings, those seen early in the morning my large and spread on a great extent of ground.

Hole. Numerous at Guadalupe River. (Small - pale, white-necked)
2 flying bats. Aga - fila.

Sept. 26. Dugon to Nogales, Arizona
 After a good breakfast at the
 hotel we attended to a number of
 little things, then boarded the
 10.40 A.M. train for Nogales, where
 we arrived at 1 P.M. The country
 between was about as I expected
 namely to Calabasas, that is
 following along the relatively
 fertile and pretty thoroughly
 cultivated Santa Cruz valley.
 From Calabasas to Nogales, however,
 it is uphill work, a steady climb
 up a steep grade. Nogales is a
 much more up-to-date and interesting
 town than we had expected to find
 it. The two railroad stations are
 on opposite sides of the famous "Inter-
 national Street", but down the middle
 of this street runs a high concrete
 wall fence and but two customs
 passes are open in Nogales. We
 were soon safely installed at the
 "Hotel Bowman" in comfortable
 rooms, had arranged for our
 machine and gotten some lunch,
 we went out the "Patagonia Road",
 winding out over high grassy
 hills with oaks in the depressions,
 and then down along the 'beautiful'

bottom land of the Santa Cruz River, with its splendid old cottonwoods. We worked this on the high ridges and along the river bottom, also in mesquite park country at the foot of the hills on the river side. It was extremely rich for us and we took back a very large haul, which kept us going until after dinner putting it up. I had a most terrible cold and ~~had~~ other indisposition, so I was anything but comfortable although I plodded away until the job was done.

Aphelocoma Day. In cottonwood along Santa Cruz River near Mogollon.

Sept. 21, Mogollon to Crooked Blanca Mts.
1922. Arizona.

John 16
6
found to W. I awoke up shortly before seven, I was feeling extremely weak, besides in addition to my cold the stomach upset, which in Crooked Blanca Mt. had started in at Indio, had caused me to eat relatively little for some days. However, I ventured a breakfast of some

Feb 17

#1-3

Details in
Ur. Blm & C.M., and down with me the
mt.

Scrambled eggs and coffee. We
left the hotel in the machine about
8 AM, and drove north on the
Decatur road for some little distance
then turned off to the west, running
through country becoming more
and more rugged, and higher,
regularly covered with oak
forest, and with many jagged
peaks and pinnacles overhanging
the surface below. The road is a
fancy road, as a good part of
our route is in the Coronado
National Forest, and in some
sections the blind curves are
occasionally sharp. We worked
at three points: the first at
about $\frac{1}{2}$ of the distance turned
and one thousand feet lower
than, the second, which was
the furthest point reached, about
2.5 miles from Argales, and the
third, about two miles east of
the extreme point reached and
higher. From the third locality
Wayne climbed to peaks of the
range a thousand or more feet
above the road. The results were
excellent, but particularly
good at the third point, where we

brought a series of a Percix crux, the first for the United States, a strikingly green & red species, while high up Morgan took the previously unknown sp. of Proterorhinus ornatus. I was feeling somewhat better but work was rather hard, and on our return to Nogales I got to work to doctor in earnest. Late in the afternoon we shipped a box of specimens home, and with Smith on drin, we had dinner at "The Can" in Nogales, Sonora. I managed to hold down the best meal I have eaten for day. We worked until midnight putting up material.

Road running west on top of Red-shafted Flicker. Then along stream bed.

Rock Mtn. Numerous in the Patagonia mts.

Mycetobius or yellow-billed Dynamis
a number in south.

Sept. 22. Nogales to Patagonia Mountains,
1922. Arizona and return.

Film 17

4.

Vines in
Patagonia
mts.

I left the hotel at 8 a.m. and

File 17

5

From Patagonia Mts.
on Santa

Cruz Valley
Nogales

travelled on the Patagonia Road as far as we went on the 20th, except that we did not turn off Cruz Valley and run down on the river flat, but continued across the river, climbing the hills on the far side. From there on it was a regularly rising road to the foot of the Patagonia Mountains. The range is a beautiful one, with the north face slopes of the canyons solidly covered with oak, while the south facing slopes are more grassy, with scattered or no trees at all. We worked at about five stations, the upper one as high as the road went, and to get there the machine had to follow a real mountain grade for quite a distance. Nogales reached the top of one of the ridges for the sake of the machine stopped, but found virtually no change from the point on the road. We were back in Nogales shortly after three and had all of our material taken care before getting dinner.

Turkey Buzzards. Venerans.
Rancho. One, seen about six
m. from Nogales.

Red-shafted Flicker. One near
Santa Cruz River.

Sparrow Hawk. Several.

Sept. 23, 1922. Nogales to Tucson, Cochise Co.,
Arizona.

Film 17
6
Hills at
Ustion,
Arizona, where tank before it had tracked
in mud

Morse up at 5:45 A.M., had
breakfast and was ready to
start on the motor for Tuba-
casing, where tank before it had tracked
into the station. The army
 dirigible C 2, which had arrived
the afternoon before, in its flight
from Langley Field to California,
had just taken the air, had
it made a circle down and
over Nogales, Sonora, then came
back and headed off toward
Yuma, its next landing
place. The motor left at 7:00
and after leaving the desert
line at Colobado on route
followed up a beautiful tribu-
tary of the Santa Cruz, with
fine large cottonwoods, rich
grass and wild flowers,
part *Polygonia* and *Dact.*

It then emerged on high rolling
grassy plains to the south
of the Huachuca, between these
mountains and the Mule
Range. The dip on the east
side was down the Babocomari
Creek, to the San Pedro, at
Fairbank. Very little work at
Fairbank demonstrated that it was
not a locality worthy of extended
time, so after lunch we headed
the "Californian" and ran on
about forty miles to Taco. Taco
is a rather pitiful American
town, pretty well eclipsed by
the sufficiently well-known
Mexican Taco immediately on
the mine fence. We struck
a machine and were installed
in a hotel, built partly of adobe.
We worked first about a mile
out of town in a fine piece of
engaged land within a few
yards of the Mexican line, which
there is without a fence, but
with a road on each side. Most
of our work was done four
miles to the east, on and
about some hills just south of
the R.R. junction of Clifton.

These limestone hills run south
on the line, but the northern
section is the highest part.
An area of black brush on the
north slope interested very
much, also from previous
which was quite foreign to
the other features of the veget-
ation. We put up material
until after ten o'clock and
then turned in.

Sparrow Hawk. One ^{& female} near Calabasas.
Solidly black birds with no bare
heads (Mex. H. hawk). Several
near Myles along trails.
Turkey Vulture. Numerous before
Myles - Fairbank.

Roadrunner. One ditto.

Mystacines. Number two, both
Meadow Lark. One near Calabasas

Ariz. mod. One near Patagonia.

Calamospiza. Several large
flocks about Tucson.

Sept. 24, Tucson to Mule Pass, return
1922. to Tucson & then to Florence,
Aug. 18 Arizona.

#1
Looking down Morgan had a terrible expe-
-rience with mosquitoes. After
Dentition
Canyon, from
Summit of Mule
Pass, Mule Mts.

a plain but wholesome breakfast
we left in the machine at 8 A.M.
headed for the Mule Mts and
the country above Bisbee. We
stopped first at Hlow Llvs, at
the foot of the mountains and
worked profitably for some time
on the hill slopes. Morgan got a
bad crack with crotulls here,
which nearly paralyzed his
right hand. Going up hill we
passed through Bisbee, which
is a most attractive sort of
mining town, we climbed by
the main road to Mule Pass,
at 6000 feet. Here we left the
machine for several hours,
Morgan going up a 1200 foot
pitch to the south, while I
walked up to the north to
a flat called "Juniper Flat",
at 7200 feet. The view from
Juniper Flat was quite
extensive to the north and
east. After eating lunch
at the car, we returned
through Bisbee to Hlow Llvs,
where we worked again for
a while. Running back to
Taco we picked up a team

of Dacnisopsida on the edge of town and then ran out a short distance to the first locality visited by us yesterday, to get an addition to our series of Drimerotrochus melanoptera, which we did. Back at the hotel at 2.45 we packed & prepared material until time to go to the train. We left Taos at 5.50 and were in Abiquiu about seven. After getting comfortably settled at the "Gadsden"; we secured a good lunch, finished our material & went to bed.

Aphelocoma Day. with upperparts blue in ♂, grayer in ♀. Seen on top of Mule Mts at 7200 feet. Inst.

Dark Bunting. Several flocks near Taos.

Band-tailed Pigeon. Flock of 10 on way up - 6 on way down high peak of Mule Mts. M. H. 7000 feet.

Raven. One other. Taos & Wen Luis.

Sept. 25, Douglas to San Bernardino
Mts., Arizona, and return.

We left the hotel at 8.00 A.M.
with a dray and mackie,
headed due east for San
Bernardino Mts. To the east
of Douglas we passed the Camp
Army camp established here some
years ago, and at which a
considerable detachment of
cavalry is still stationed. Then
the road led over a divide in the
relatively low Perilla Mts., which
here separate the Sulphur Springs
valley, in which lies Douglas,
from the San Bernardino Valley,
which latter is separated by low
hills from the San Simon Valley
to the north. The San Bernardino
valley divides southward into
the Goyen Basin of Mexico. From
the Brillas, where we spent the
latter part of a profitable tour,
we dropped down into San Ber-
nardino Valley and after some
miles reached the south. Here
are many fine cottonwoods,
good springs, great quantities of
pecanmeads and also of
cactus wood. We worked through

Some fine, cliff after Melan-
ophas thomasi, which we con-
trasted and secured in num-
bers. From this point we moved
to the nearby brush, with a
mixing of lawn fragments
and very rough ground. Here
black bush and creosote
brush were associated, but no
Pisotella, Gomphrena or
Burtilia were found. We were
back in Douglas at 3:30 and
worked until 11 P.M. putting
up a large haul.

Turkey Buzzard, several.
Mall (sp) one seen feeding
by GR. in Prilla Mts.
Brown Blackbird. One large
flock at the Bernardino Ranch.

Sept. 26. Douglas, to Hatchita, New Mexico.
1922. We left the hotel at 8 A.M.,
in the same machine we used
yesterday. We left off to the north
of Douglas in the Sulphur Spring
Valley, collecting in two con-
ditions, one an open valley flat,
the other about a deep wash which

is the valley drainage channel.
Counts were not fair, although
we measured the first Arizona
record of Mesidolopbus. We
were back at the hotel before
dinner, put up the day's catch,
had lunch and boarded the
2.25 P.M. train for Hatchet,
New Mexico. The track climbs
through a low pass in the Perilla
Mts., then down into the San
Juan valley, following this depar-
tly N.E. through a group of
hills at the north end of the
Gredelapse range and then
across the Valle de los Plazas,
then up through more hills, which
are probably the southern slopes
then down into the valley in which
the town of Hatchet is situated.
Arrangements were soon made
for robes and a machine to
drive us take us to the Hatchet
Granite in the morning. After
a substantial dinner we
chatted for some time with a
Baptist. Samay wolf man
named Andmant, a most
interesting fellow, apparently
a man of Calumet of bent.

Golden Eagle. One in fence
Post suburban Custer and
Placitas.

Common Hawk. One flying
some points.

Bank sp.[?] slate gray above
with faint yellowish or white
bands. Ad. Flying, between
some points.

Rock Bunting. Several
flocks at Blanglas.

One Ad. batcher between
Blanglas - Hachita

Sept. 27, 1922. Hachita to Hachita grande
Mts., New Mexico and return,
film 18 and into El Paso, Texas.

#2-6
Woke up at 5:30, had break-
fast a few minutes after
Hachita six and one off before down
grande Mts. for the Hachita grande Mts.

Ran due south down the Hachita
valley for nearly twenty miles,
then climbed a draw between
the Little Hachita and the
Hachita grande, then south
on Poyas Valley to a ranch
at the base of a large west
facing canyon. About ten
miles south of Hachita on

driv shot a coyote with his 30-40,
making a fine long ~~shot~~ shot,
and getting him through the shoulder.
From the ranch in the Playas
valley we climbed a good part of
a thousand feet, up a road
made up of nothing but sharp,
loose stones in many places,
to a point in the canyon at
about 5500 feet elevation. From
here Morgan struck for higher
levels, while I walked the
canyon and surrounding hill
slopes. Our cutter was at the
lim edge of the juniper and
piñon belt, which became very
solid on the slopes under the
nearly vertical walls of Hatchita
Grande Peak, which has a
cliff face of about 1800 feet.
At 1.30 we started back, collecting
at the canyon mouth, then
straight to Hatchita. We packed
and at 7.50, we were being late
we pulled out for El Paso
and arrived at 10.00 P.M.
Installed at the ~~Paso del Norte~~
in prep and material until
1.45 AM.

Golden Eagle. Siv. about
peak. Mts. 8500 feet.
Jay (Pine) Large flock at
about 7200 feet m. peak (Mts)
Carolina Bunting. Numerous
Rm Numerous.

Sept 28. Left El Paso at 3.05 P.M.
1922. Several hours later on "Golden
State Limited".

Sept 30. Reached Chicago at
1922. 9.30 am. Left at 12.40
P.M. on "Broadway Limited".

Oct. 1. Reached North Phila.
1922. at 8.20 am.

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Copies given to Dorothy.

Rose & Stone.

Mail (dates are of mailing in Philadelphia and vicinity).

Until Aug. 9 - Evanston, Nevada.

Aug. 10-13 - Wells, Nevada.

" 14-24 - Bakersfield, Cal.

" 25-Sept 8 - San Diego, Cal.

Sept. 9-16th - El Centro, Cal.

" 17-22 - El Paso, Texas.

Emergency addresses (telegraph)

August 6th - Cheyenne, Wyoming.

" 7th-8th - Cheyenne, "

" 9th - Medicine Bow, "

" 10-11 - Rock Springs, "

" 12 - Green River, "

" 13-14 - Evanston, "

" 15 - Ogden, Utah

" 16-17 - Wells, Nevada.

" 18 - Reno, Nevada

" 19-20 - Alturas, Cal.

" 21-22 - Lakeview, Oregon.

" 23 - Wendel, Cal.

" 24 to 26 A.M. - Westwood, Cal.

" 27 - Sept 1st - Coalinga, Cal.

Sept 1-4 - Bakersfield, Cal.

Sept 5-9 (or possibly 11) - Searles, Cal.

Sept 10 (a pm, Aug 12) - 13 - San Diego, Cal

Sept. 14-15 - Campo, Cal

Sept. 16-17 - Jacumba, Cal.

Sept. 18-22 - El Centro, Cal.

Sept. 23-24 - Gila, Arizona.

Sept. 25 - Winslow, Arizona.

Sept 26-27 - Columbus, N. M.

Sept. 28 (Sunday) El Paso, Texas.

Address for telegraph to "Leading Hotel."

Records of drafts

- \$10 A 1,872,784
A 1,872,785
A 1,872,786
A 1,872,787
- *20 B 1,806,167 cashed Phila VIII. 4. 1922
B 1,806,168
B 1,806,169
B 1,806,180
B 1,806,181
B 1,806,182
B 1,806,183
B 1,806,184
- *50 C 771,691
C 771,692
C 771,693
C 771,694
C 771,695
C 771,696
C 771,697
C 771,700 cashed Laramie, Wyo. VIII. 8. 1922.

Coll. 739

1922

Rehn, J.A. (e. field) Journals
List of photographs taken during expedition
found between pages 52 and 53 in
Volume # 11.

- A. Telescope Peak in Panamint looking E.
from floor of Panamint Valley, showing
mouth of Wild Rose Canyon, mine 2000 feet.
- B Wild Rose Canyon at 3000 feet. Below Wild
Rose spring.
- C Up Wild Rose Canyon from spring (Wild Rose
Spring 3600 feet).
- d. Horn Canyon from same point.
- e. Horn Wild Rose Canyon from 3500 feet, looking
over W. Sierras in distance.
- f. Kilns at 6500 feet Wild Rose Canyon.
- g. Horn Wild Rose Canyon - from Kilns.

676½

